

Teaching L2 Vocabulary Through Animated Movie Clips with English Subtitles

Hanadi Abdulrahman Khadawardi*

English Language Institute (ELI), King Abdulaziz University (KAU), Saudi Arabia

Corresponding Author: Hanadi Abdulrahman Khadawardi, E-mail: hanadikhadawardi@gmail.com

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ABSTRACT

Vocabulary mastery is essential for second language (L2) students. Several trends in foreign language vocabulary research and pedagogy have emerged during the 21st century. Perhaps the most significant is the technological revolution and the ever-increasing availability of English-language materials on the Internet. Thus, the present study examines the effectiveness of watching video clips with English subtitles in online classrooms to improve L2 students' vocabulary learning and short- and long-term retention. The study consisted of a one-group, pretest-posttest quasi-experiment in which participants were taught two sets of L2 vocabulary using two methods: the presentation of subtitled clips from animated movies and first language (L1) translation and text-based activities. The participants consisted of 35 female students. The data collection was stratified into four steps: two pretests administered for both vocabulary sets before the interventions, short follow-up tests after both interventions, semi-structured interviews, and two posttests for both vocabulary sets administered at the end of the module. The data was subjected to statistical and thematic analysis. The results indicated that watching movie clips with subtitles had an effective learning result and a positive impact on students' motivation to learn L2 vocabulary. The integration of multimedia tools and applications through the presentation of video clips with English subtitles had a powerful effect on vocabulary recognition, comprehension and retention. Participants achieved higher scores on the vocabulary posttests from watching movie clips with English subtitles than from learning vocabulary through a traditional teaching method. Therefore, the current study should serve as a foundation for future studies to validate and reference its results.

Key words: L2, Vocabulary Learning, Long-Term Retention, Short-Term Retention, Multimedia Learning, Subtitled Movies, Short Movie, Foreign Language

INTRODUCTION

The main construct addressed in the present research is vocabulary. According to Nation (2013), vocabulary knowledge is one of the most important elements in acquiring, teaching and learning any language. It plays an essential role in efficient foreign language comprehension and language production. Thus, successful second language (L2) development occurs as a result of effective vocabulary teaching and learning activities (Alagozlu & Kiyamazarslan, 2020). In this regard, researchers have defined vocabulary according to its function. Nation (2013) stated that vocabulary is a powerful carrier of meaning. Additionally, Graves (2016) suggested that vocabulary means knowledge of words and their meanings. Without first establishing a strong vocabulary base, meaning comprehension and language use cannot be achieved. Thus, L2 students should be able to recognize words in context and know what they mean. Several authors have suggested more complex definitions for vocabulary. According to Nation (2001), vocabulary knowledge implies comprehending a word in the spoken/written form which can

be recognized and understood in and out of context. Additionally, Horst (2019) indicated that vocabulary knowledge is often defined as precise comprehension and operationalized as the ability to translate lexical items into the learner's first language. It also encompasses the ability to identify the correct definition in a multiple-choice task or paraphrase a target language. Most definitions of vocabulary convey the idea that vocabulary knowledge requires not only knowledge of word meanings but also their usage in an appropriate natural context (spoken or written); thus, these definitions encompass the relationships between newly acquired words and existing words in learners' competences or schemata.

There are four types of vocabulary, which are divided by frequency and range (Nation, 2008; Horst, 2019): high-frequency, low-frequency, academic words and technical words. High-frequency words occur often in a language and have multiple uses. They are needed in spoken and written language and in formal and informal contexts. Academic words are widely used in specialized areas such as politics, accounting or family law and do not occur in other kinds of language

use. Technical words are very common in specific areas and have very specialized purposes, such as words related to physics and math. Low-frequency words rarely occur and are not needed in everyday use of the language (Ibid). These different types of vocabulary require various kinds of teaching instructions and pedagogical practices to be successfully taught to L2 learners in blended or/and distance learning contexts.

As a result of the Covid-19 pandemic, teaching and learning shifted to fully electronic. Methods. Students suddenly had to engage with online materials in all their classes and remotely interact with teachers for an extended period of time. This negatively affected students, as they began to lose motivation to engage in online learning. According to the researcher's experience in English-language teaching, students did not effectively participate in classroom activities and their motivation to learn English decreased. Their engagement in following online instructions also declined, and their interactions in English classrooms and English learning noticeably declined. To increase students' motivation to learn an L2 and their engagement in online classes, a useful and interesting teaching method was needed, especially with regard to vocabulary.

Thus, based on the abovementioned literature and the contextual needs and problem of learning L2 vocabulary and classroom interaction and engagement, the researcher attempted to fill this research gap by investigating the impact of using subtitled video clips to present target words to facilitate vocabulary learning and retention, which could be rewarding in a foreign-language learning context. To explore the impact of watching subtitled movie clips on short- and long-term vocabulary retention, the following research questions (RQs) were formulated:

- RQ1: Does watching animated movie clips with English subtitles have a statistically significant impact on intermediate Saudi learners' short- and long-term vocabulary retention?
- RQ2: Is there a significant difference between the relative impact of watching animated movie clips with English subtitles and traditional instruction on intermediate Saudi learners' L2 vocabulary learning?
- RQ3: Do students' engagement and motivation to learn L2 vocabulary increase by watching animated movie clips with English subtitles?
- RQ4: What are students' views on watching animated movie clips with English subtitles to learn L2 vocabulary?

THEORETICAL FRAMEWORK

Vocabulary

Vocabulary is essential to any language and critically important to language learners. All language researchers agree that a key element in fluent L2 language use is the ability to automatically recognize words in listening or reading and easily recall words in speaking or writing (Smith, 1969; Nation, 2008; Horst, 2019; Webb, 2020). Nevertheless, vocabulary instruction and learning have been undervalued in the field of second language teaching and learning throughout its

varying outdated teaching stages and until the present day. Lexical pedagogy began with the grammar translation method (GTM), in which vocabulary was presented in the form of isolated words; the only drills were translation exercises. Vocabulary teaching then moved to the direct method (DM), in which vocabulary was introduced in context. Subsequently, several teaching methods were introduced, such as reading method/situational language teaching, the audio-lingual method (ALM), total physical response (TPR), communicative language teaching, the natural approach and teaching proficiency through reading and storytelling (TPRS; Alagozlu & Kiyamazarslan, 2020; Horst, 2019). This indicates that theoretical priorities have changed throughout the history of language teaching, as reflected in the relative importance placed on pronunciation, grammar, reading or speaking.

Teaching Vocabulary

It is crucial for teachers to determine what to involve in knowing, teaching and learning a word. There are different methods for teaching vocabulary. One method is explicit instruction, which includes pre-teaching and the analysis of root words. Another method is implicit instruction, which is based on exposure to words during reading. A third method relies on multimedia use; words are presented in pictures, hypertext and animated videos (Horst, 2019). Three categories of vocabulary learning are taught: meaning, form and use (Horst, 2019). Word meaning is taught through methods such as finding the core meaning, word card testing, using the dictionary and guessing from context. Several researchers have promoted different methods and approaches for vocabulary instruction. Incidental word learning through listening, reading, discussion and writing skills at all ages and levels of proficiency have been highlighted in vocabulary teaching (Nation, 2008; Graves, 2016). Learners can develop their vocabulary knowledge through various activities that invite, motivate and prompt them to learn vocabulary in the target language (Graves, 2016; Graves et al., 2013). Other researchers have encouraged the use of approaches to teaching individual words and considered them to be part of a comprehensive vocabulary programme, such as clarifying and enriching the meanings of known words and teaching the meanings of new words (Graves, 2016). In addition, unknown vocabulary can be taught to students through word learning strategies to unlock and learn word meanings, such as using word parts, context clues, the dictionary and recognizing and parsing multiword units. Moreover, teaching vocabulary requires students to recognize eight aspects of vocabulary learning: incrementality, multidimensionality, polysemy, interrelatedness, heterogeneity, definitions, context and word parts (Coady and Huckin, 1997; Graves, 2016; Oxford and Crookall, 1990) cited in (Alagozlu and Kiyamazarslan, 2020) classified vocabulary teaching techniques into three categories: de-contextualizing, semi-contextualizing and fully contextualizing (see Table 1).

In addition to the various techniques and models for teaching vocabulary, recent advances in information tech-

Table 1. Common vocabulary learning strategies from less input to more input

⇐ Less input/less context	More input/more context ⇨	
De-contextual	Semi-contextual	Fully contextual
Word lists	Bilingual word lists	Listening (stories)
Monolingual word lists	Physical response	Reading (stories, readers)
Flashcards	Semantic mapping	Writing
Dictionaries/glosses	Word grouping	Speaking
Structure/phrase lists	Imagery: aural/visual	High-frequency words in context

nology have led to important changes in teaching theories and instruction to develop students' L2 vocabulary. The following section describes technological pedagogy in vocabulary learning in more detail.

The Cognitive Theory of Multimedia Learning

Over the last few decades, technology has reformed the educational world. Educational technologies have revolutionized the teaching environment through new innovations and introduced a wide range of strategies and tools to language classrooms, from computer-based systems to the use of clips, apps, and software. The use of multimedia materials such as movies and television programmes is a common method for improving L2 vocabulary. Recently, many studies have focused on the impact of multimedia materials on L2 vocabulary learning based on the cognitive theory of multimedia learning (CTML) (Arndt & Woore, 2018; Sabouri et al., 2015; Sirmandi & Sardareh, 2016).

Multimedia learning is rooted in the cognitive schemata that enable learning to take place. Accordingly, CTML focuses on the use of multimedia presentations such as YouTube and movies to teach languages (Mayer, 2014; Jenlink, 2019). It is based on cognitive theory that enables learners process information mentally and achieve learning within the technological features. The origins of CTML encompass various theories: working memory theory, dual coding theory, cognitive load theory and generative theory (see Figure 1). According to CTML, learning processes depend on the relationship between the learner's cognitive abilities and memory. It supports the idea that learners build meaningful connections and mental representations between words which are spoken or printed text and pictures which are photos, animations, or video, then actively process them in long-term memory (Jenlink, 2019). Moreover, learners process new multimedia information through two channels: visual (nonverbal) and auditory (verbal). It aligns with dual coding theory, which suggests that, when pictures are added to the meaning, the number of signals connected to the message increases and more comprehensible input is provided. Mayer's (2014) cognitive model of multimedia learning processing posits two information processing channels: verbal and visual; the other columns represent the mode of knowledge representations, such as words or/and pictures.

In CTML, the focus of teaching shifts to a multimedia-based approach. This requires the teacher to integrate digital technologies and multimedia method into the pedagogical practices (Jenlink, 2019). Thus, a multimodal ap-

proach entails support for vocabulary comprehension, learning and retrieval, which is underpinned by CTML.

According to multimedia learning principles, learning occurs when the use of multimedia helps to decrease learners' extraneous cognitive load during learning processes and direct their attention to the target materials (Teng, 2021). Based on this theoretical conceptualization, a combination of verbal and non-verbal input in subtitled videos may prompt learners to perceive, comprehend, use and merge new information into their mental system (Teng, 2021).

On the other hand, learning may be ineffective when learners are distracted. For example, they may not be able to link different information to retrieve meanings when learning vocabulary from English-language videos based on pictures alone; other sources may be needed to construct stronger meanings. For example, non-verbal aids may be provided to enhance vocabulary learning. Thus, L2 captions – a type of onscreen textual information presented in the learners' target language – can lead to better processing and recall because of the triple association between image, sound and text (Teng, 2021). Based on the abovementioned theories, the researcher used some of their features for the present study, such as the use of audio-visual materials that combine sounds, words and pictures. The aim is to help students learn and recall new vocabulary by watching video clips with English subtitles.

Teaching L2 vocabulary via multimedia materials, especially video clips with subtitles, has received widespread attention. Learning vocabulary in L2 is essential, and words cannot be used if they are not known (Romero-Villamil, & Guzman-Martinez, 2020). Thus, learning and automatically retrieving vocabulary are key elements in L2 language learning. Another important issue is that students tend to forget vocabulary if it is not learned through appropriate teaching methods that provide them with effective language inputs in a genuine language environment. In this regard, increasing access to different technological resources may facilitate vocabulary learning; in particular, watching video clips with subtitles can be a valuable tool in teaching new words and bringing students closer to authentic, real-life vocabulary.

Movie clips are one of the most prominent examples of multimedia tools for language classrooms, especially when they feature subtitles or captions. To date, research on watching short videos has almost exclusively focused on their benefits for vocabulary learning (Amirreza, 2019; Sadiku, 2018; Sirmandi & Sardareh, 2016; Yawiloeng, 2020). Studies have found that animated images leave a stronger impression on learners because written and spoken words are combined with images to enhance the learning process

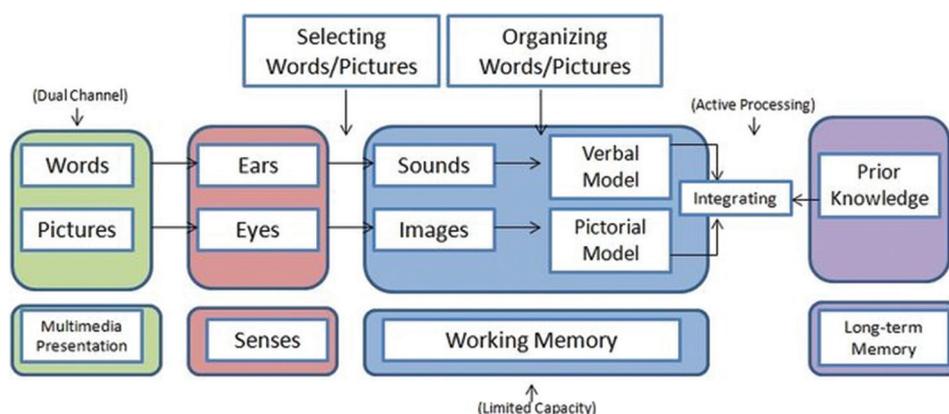


Figure 1. Cognitive Theory of Multimedia Learning (Mayer, 2014)

(Hariyono, 2020; Yawiloeng, 2020). Moreover, using videos with captions or subtitles enables language learners to access greater working memory capacity (Mayer, 2014; Jenlink, 2019; Romero-Villamil, & Guzman-Martinez, 2020). Therefore, captions or subtitles are more likely to contribute to better vocabulary learning and recall than watching movie clips without subtitles (Schmitt & Schmitt, 2020). In addition, watching video clips enables learners to be exposed to authentic materials and visual information in a real context, natural language spoken at a normal conversational speed, and different socio-cultural backgrounds. Furthermore, watching videos with subtitles can be beneficial for weaker or elementary-level L2 students because language can be understood with the help of subtitles (Amirreza, 2019). In addition, Schmitt and Schmitt (2020) asserted that the audio-visual processes of watching videos provide an interesting and enjoyable learning experience for students. Thus, audio-visual materials can be a very motivating and engaging method to attract students' attention. Most previous studies have identified benefits from the use of subtitled movies and confirmed that subtitles improve students' L2 vocabulary learning. Thus, the current study used video clips in an L2 classroom to develop L2 vocabulary learning and teaching. Previous studies on the use of short videos for learning general vocabulary showed that it may lead to vocabulary learning in the target language (Arndt & Woore, 2018; Sadiku, 2018; Yawiloeng, 2020). Some of them have presented those visual materials specially subtitled ones and found that they can play a vital role in helping learners increase their foreign-language vocabulary (Kanellopoulou et al., 2019; Romero-Villamil & Guzman-Martinez, 2020; Sadiku, 2018). Although the same reasoning can be applied to most types of vocabulary, no studies to date have examined the effectiveness of watching subtitled movie clips for short- and long-term vocabulary learning and retention.

The current study investigates the impact of contextualizing vocabulary items in the form of movie clips with English subtitles and compares the effectiveness of this approach to teaching L2 vocabulary through a traditional teaching method. It is believed that enriching the context in which language learning takes place may have a considerable impact on learners' vocabulary development and retention. The vo-

cabulary items in any context are used as the main element that learners try to understand in a written and/or spoken discourse. Thus, the process of teaching L2 vocabulary is the most crucial part of learning a target language.

METHODOLOGY

Participants

The current study involved one class of students with similar English language ability and vocabulary size. The participants consisted of 35 first year preparatory Saudi female students in an online classroom setting at the English Language Institute (ELI) of King Abdul Aziz University. They were between the ages of 18 and 21 and spent 19 hours per week attending an English course that teaches reading, writing, listening and speaking skills. All the participants were at a similar English proficiency level (intermediate) at the time of the study, as determined by the Oxford Placement Test (2004). At the beginning of the research, ethical issues were considered, and consent forms were obtained from participants prior to the study.

Study Design

Two sets of L2 vocabulary with a similar difficulty level were taught through two different methods: presenting movie clips with captions and a traditional teaching method. The target vocabulary in the current study was chosen based on the word database provided by English Vocabulary Profile for students at a pre-intermediate (B1) or intermediate (B2) English proficiency level.

A quasi-experimental single group research design was employed to examine the effectiveness of using video clips with subtitles to teach L2 vocabulary. Pre-test-posttest designs are widely used in behavioural research, primarily for the purpose of comparing groups or variables and/or measuring changes that result from experimental treatments (Cohen, Lawrence Manion, 2017). A one-group pretest-posttest research design was used; the dependent variable was measured before and after the implementation of the educational intervention (use of video clips with subtitles).

Procedures

Three instruments were used to collect data. First, a standard proficiency test called the Oxford Placement Test was administered to ensure that participants had the same proficiency level, as identifying learners' proficiency level is an essential step in teaching vocabulary (Nation, 2008).

Second, a total of four vocabulary tests were administered to investigate long-term vocabulary retention: a pretest and a posttest to assess the impact of teaching vocabulary through subtitled movie clips and another pretest and posttest to assess the impact of teaching vocabulary through a traditional teaching method. Each pretest and posttest consisted of 40 multiple-choice items to measure the effectiveness of both teaching approaches on participants' long-term L2 vocabulary retention. One point was given for each correct answer. The parallel form of pretests and posttests included 40 vocabulary multiple-choice items assessed the participants' long-term vocabulary learning. The tests were electronically administered. To calculate their reliability, Kuder-Richardson Formula 21 (KR-21) was used. The reliability estimate for the vocabulary tests was 0.89, which indicates that they were reliable.

Third, continuous assessment measures were administered based on the vocabulary introduced to participants during the lessons. They consisted of 16 short tests with five multiple-choice items each (Cohen, Lawrence Manion, 2017). The assessments were distributed eight weeks after each vocabulary lesson to measure participants' short-term vocabulary retention. Thus, eight assessments were administered to evaluate the impact of a traditional teaching method on participants' short-term L2 vocabulary retention, and the other eight assessments were administered to evaluate the impact of watching subtitled movie clips on participants' short-term L2 vocabulary retention.

Fourth, semi-structured interviews were conducted online with 10 participants using Blackboard Altra. The aim of the interviews was to explore participants' views on the advantages and disadvantages of employing subtitled movie clips as an audio-visual teaching strategy. To this end, participants were asked questions about their perceptions of learning L2 vocabulary through subtitled movie clips. Five main questions and multiple follow-up questions were asked in the participants' first language (Arabic). The questions focused on the participants' views on the usefulness of watching movie clips in helping them learn and understand new vocabulary. They were also asked about their perceptions of the role of watching clips in short- and long-term vocabulary retention. In addition, participants were asked about which method they preferred for learning vocabulary in the online classroom. Finally, they were asked about the disadvantages and challenges associated with watching subtitled movie clips.

Implementation of the Educational Intervention

The researcher used movie clips with subtitles to teach L2 vocabulary; they were selected according to the participants' English proficiency level and their similarity in difficul-

ty and form with the words taught in their textbook. Every week over a period of eight weeks, participants spent approximately 25 minutes of their daily four-hour English class watching a subtitled video clip. Thus, they watched eight clips throughout the study. The clips were presented in multiple steps. First, a preview was shown. Participants listened to an introduction about the plot of the movie and discussed the movie if they had already seen it to activate their schemata and background knowledge about the taught vocabulary and link what they already knew about the movie with the vocabulary that they would learn from the clip. Second, participants watched the movie clip and followed the subtitles. Third, they watched the movie clip a second time and focused on specific words that were electronically highlighted in the subtitles, followed by explanations and usage examples presented in other clips from the movie (see Figures 2 and 3). Fourth, participants were asked to complete a short assignment in which they had to write five words highlighted in the clips. After that, students were asked to answer short test consists of five multiple choice items of vocabulary presented in the clip to examine their short-term vocabulary retention. Students were instructed to answer all the questions in a specific time to avoid them using any sorts of help such as using dictionaries or Google translator.

The Traditional Teaching Method

The researcher used a traditional method to teach the other set of vocabulary for the same group of students. A textbook (English Unlimited by Cambridge) was used in the



Figure 2. Part of the Movie Clip - <https://www.youtube.com/watch?v=SAY6Mptrj5s>



Figure 3. Part of the Movie Clip - <https://www.youtube.com/watch?v=SAY6Mptrj5s>

English Language Institute to teach Multiple language skills including vocabulary and grammar. Students were learning vocabulary via reading English texts and listening to a conversation. Students were introduced to the unknown vocabulary based on their book at the beginning of each chapter. They also were asked to do multiple activities such as writing tasks, speaking and grammar to learn the target vocabulary in the book. They were also introduced to the target vocabulary by translating it into their first language (Arabic). After each vocabulary lesson, participants were asked to complete similar assignments as for the movie clips: short assessments that consisted of writing five words mentioned as part of the traditional teaching method and a five-item, multiple-choice vocabulary test.

Materials

Popular English-language animated movies were chosen as the stimuli and an input for this study. Eight clips of 10 minutes each were selected from eight movies. The materials were selected based on their suitability for students, the participants' interests and the participants' language proficiency level. Therefore, engaging materials drawn from animated movies were preferred, as they were relevant to the learners' language proficiency level, lives, ages, interests. Moreover, they were representative of real-life situations, as they introduced realistic and current English expressions. Words extracted from the movie clips and used in the tests were also suited to participants' English-language level and varied in form. They included expressions such as 'madness', 'brilliant', 'steed', 'allow', 'weirdest', 'roll your eyes', 'shape shifter', 'mortals', 'card key' and 'get rid of'.

Data Analysis

The main data in the present study consisted of answers to multiple-choice questions. The participants received one point for each correctly answered item. The data were analysed using SPSS software (version 27). A paired sample *t*-test was used to compare mean scores before and after the implementation of each teaching method. A repeated measures ANOVA test was used to explore differences in mean scores on the short-term retention tests over an eight-week period. A confidence interval (CI) of 95% ($p < 0.05$) was used to represent the statistical significance of the results, and the significance level was set at 5%.

The interviews were translated into English for analysis and presentation purposes. They were all transcribed and analysed using NVIVO software. Thematic analysis was performed to reveal patterns in the participants' responses. Each participant was assigned an identification number for confidentiality and anonymity.

RESULTS

Impact of Intervention Versus Traditional Teaching Methods

A paired sample *t*-test was used to explore whether there was a statistically significant difference in participants' mean

scores between the traditional teaching method and the intervention. The paired sample *t*-test confirmed that there was a statistically significant difference ($p < 0.001$; see Table 2).

The analysis showed that participants' mean scores were higher for the intervention than the traditional teaching method. Figure 4 shows changes in mean scores associated with the two teaching methods (traditional versus intervention) over the eight-week study period.

Teaching Methods and Long-Term L2 Vocabulary Retention

Table 3 shows the participants' mean scores before and after the implementation of the two teaching methods (long-term retention). Mean vocabulary scores significantly increased with both the traditional teaching method and the intervention: by 73% and 156.8%, respectively. In the traditional teaching method, the mean score increased from 12.6 (*SD*: 4.6) to 21.8 (*SD*: 5.6). In the intervention, the mean score increased from 12.5 (*SD*: 5.3) to 32.1 (*SD*: 5.9).

Teaching Methods and Short-Term L2 Vocabulary Retention

Short-term vocabulary retention was separately assessed for the two teaching methods over a period of eight weeks. For the traditional teaching method, the mean score increased from 3.3 (*SD*: 1.3) to 3.6 (*SD*: 1.1), which represents a 9.1% increase. By contrast, the mean score for the intervention decreased from 4.6 (*SD*: 0.9) to 4.0 (*SD*: 1.1), which represents a decrease of 13%. Table 4 describes changes in mean scores over the study period (short-term retention).

A repeated measures ANOVA test determined that there was a statistically significant change in mean scores for the intervention ($p < 0.001$) but not for the traditional teaching method ($p = 0.066$; see Table 5).

Participants' Views on the Use of Video Clips for L2 Vocabulary Learning

Participants' views on the use of movie clips for learning English vocabulary were generally positive. They considered the videos to be very useful and mentioned that they could learn vocabulary more rapidly and with less effort. For example, Participant 1 said, 'I can easily understand

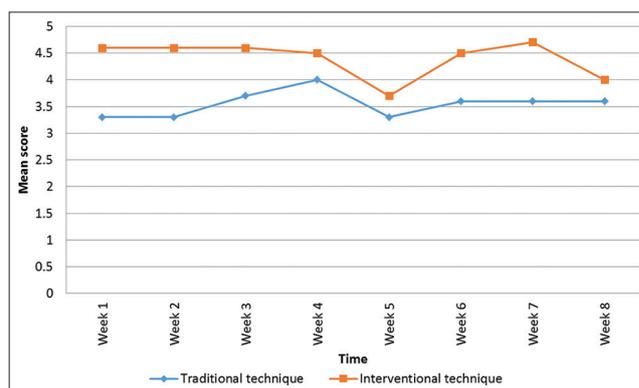


Figure 4. Changes in mean scores over time

Table 2. Difference in mean scores over time (paired *T*-test)

		Mean difference	95% CI	<i>t</i>	df	<i>p</i> -value
Long-term retention	Pre versus post (traditional teaching method)	9.2	[7.2, 11.2]	9.2	34	<i>p</i> < 0.001
	Pre versus post (intervention)	19.7	[17.4, 21.9]	17.6	34	<i>p</i> < 0.001

Table 3. Pretest and posttest mean scores for both the traditional teaching method and intervention (long-term retention)

Teaching method		Mean score (<i>SD</i>)	Percentage difference in pretest and posttest mean scores
Long-term retention	Mean score before the traditional teaching method	12.6 (4.6)	73%
	Mean score after the traditional teaching method	21.8 (5.6)	
	Mean score before the intervention	12.5 (5.3)	156.8%
	Mean score after the intervention	32.1 (5.9)	

Table 4. Changes in mean scores over the study period (short-term retention)

Week	Traditional teaching method (<i>n</i> =35)	Intervention (<i>n</i> =35)
Week 1	3.3 (1.3)	4.6 (0.9)
Week 2	3.3 (1.3)	4.6 (0.6)
Week 3	3.7 (1.3)	4.6 (0.8)
Week 4	4.0 (1.0)	4.5 (0.8)
Week 5	3.3 (1.2)	3.7 (0.8)
Week 6	3.6 (1.2)	4.5 (1.1)
Week 7	3.6 (1.3)	4.7 (0.6)
Week 8	3.6 (1.1)	4.0 (1.1)
Overall change (Week 1 vs. Week 8)	9.1%	-13.0%

the meaning of the vocabulary presented in the scenes'. In addition, Participant 2 said, 'The videos helped me learn the vocabulary faster, as I don't need to translate or find out how to use it; everything can be understood from the scenes'. Most participants mentioned another advantage of using video clips for vocabulary learning: increased motivation. Participants expressed a willingness and an enthusiasm for learning new vocabulary through movie clips. For example, Participant 2 said, 'Watching these clips was very motivating and encouraging'. Similarly, Participant 3 said, 'Sometimes, we feel bored during online lessons but once you play the video, I feel excited to follow and learn'. Participant 4 also indicated, 'The movie clips are very motivating to understand and recognise the words that are used by the characters, and I like that we watch different clips every time'.

When asked about how the intervention affected their learning of word meanings and knowledge on how to use words in context, some participants replied that watching video clips made it very easy to learn how words are used in speech and conversation. For example, Student 5 said, 'When I hear words in conversation, it is much easier than learning them through exercises and our book'. Similarly, Participant 1 said, 'The conversation in the movie makes it very easy for me to understand the word and how it could be used in real conversations'. Furthermore, over half of par-

ticipants reported that watching video clips enhanced their pronunciation. For example, Participant 7 said, 'Listening to the vocabulary in the movies was very useful for learning how to say these words properly'. Participant 5 added, 'My pronunciation of new words has improved'.

In terms of retention, some participants mentioned that watching movie clips helped them recall vocabulary even after an extended period. They said that they were able to make connections between the story, sounds, animated images, and subtitle text in the movie clips to remember the presented words and acknowledge their meaning and usage. For instance, Student 6 said, 'The combination of written words and animated images helped me remember the meaning of the words and answer the questions in the posttest'. In addition, Participant 4 said, 'Watching the movie clips helped me remember the context in which the words were said and their meaning with less effort'.

On the other hand, some participants mentioned several disadvantages of using video clips in the online classroom, such as technical issues. For instance, Participant 6 said, 'Sometimes, we were disconnected while watching the clips and I missed some parts of the video'. Similarly, Participant 8 indicated, 'When the internet connection is not good, I cannot follow the video very well'. Another disadvantage that participants mentioned during the interviews was the speed of some of dialogue in the videos. For example, Participant 9 said, 'If they were talking very fast, I could not follow everything and lost parts of the conversation as well as the target words'. Similarly, Participant 3 said, 'The speed of some scenes makes it difficult to follow all the words and understand their meaning'.

DISCUSSION

Impact of Watching Movie Clips on Participants' L2 Vocabulary Learning

The first research question concerned whether watching animated movies with English subtitles had a statistically significant impact on intermediate Saudi EFL learners' short- and long-term vocabulary retention. The results indicate that participants learned vocabulary and were able to recognize and perform well on the posttests and weekly tests as a result of watching subtitled movie clips. The latter enabled par-

Table 5. Repeated measures anova test (short-term retention)

	Wilks' lambda value	F	Hypothesis df	Error df	p-value	Partial eta squared	Noncentrality parameter	Observed power
Traditional teaching method	0.646	2.192	7.000	28.000	$p = 0.066$	0.354	15.346	0.714
Intervention	0.322	8.439	7.000	28.000	$p < 0.001$	0.678	59.070	1.000

participants to apply their cognitive construction to recall the correct meaning of the target vocabulary. In accordance with the results from this study, previous studies (Aidinlou, 2016; Elekaei et al., 2020) demonstrated that long-term vocabulary retention is facilitated by the integration of multimedia and subtitles. Thus, the current study shows that watching subtitled movie clips has a positive impact on learners' L2 vocabulary learning and retention.

Impact of Watching Movie Clips and Traditional Instruction on Participants' L2 Vocabulary Learning

The second research question concerned whether there was a significant difference in the relative impact of watching animated movies with English subtitles and traditional instruction on intermediate Saudi EFL learners' vocabulary learning. To answer this question, mean vocabulary test scores for the two pedagogical methods (the intervention and the traditional teaching method) were compared. The analysis showed that there was a significant difference in mean scores on the posttests and weekly tests for the two teaching methods. Participants obtained higher scores on the tests after watching the video clips than after learning vocabulary through traditional instruction. The results of the present study align with those of (Arndt & Woore, 2018; Hariyono, 2020; Montero Perez et al., 2015; Romero-Villamil & Guzman-Martinez, 2020; Sabouri et al., 2015; Yawiloeng, 2020), who found that the use of subtitled movies can improve students' engagement in learning and retrieval of new lexical items. This is because students who learn an L2 through multisensory channels could have a wider spectrum to put their skills into practice so as to work out the target vocabulary (Jenlink, 2019). The current study reveals that watching movie clips with subtitles, musical background, scenes with dialogue, and bright animated images enhanced students' L2 vocabulary learning. That is, students achieved higher scores and learned vocabulary more efficiently by watching movie clips than learning through a traditional teaching method.

Impact of Watching Movie Clips on Participants' Engagement and Motivation

The third research question concerned whether participants' engagement and motivation to learn L2 vocabulary increased by watching movie clips with subtitles. The results indicate that participants were motivated to pay attention to the teacher in online classes and participated more frequently in lessons. Most participants strongly agreed that watching video clips to learn new vocabulary provided an attractive, enjoyable and interesting learning environment. These results are consistent with those of Abdulhussein and Alimardani

(2021), who found that using multimedia presented in playing a story-based video game had a significant effect on participants' motivation to learn L2 vocabulary. Similarly, the findings of Hariyono (2020) support the idea that students' engagement and excitement in the classroom increases with the use of YouTube videos. Thus, it can be concluded that using multimedia creates a positive atmosphere in learning environments. In this study, participants' interaction and engagement with L2 vocabulary lessons increased as a result of watching animated movie clips with English subtitles.

Participants' Perspectives on Watching Subtitled Movie Clips to Learn L2 Vocabulary

The fourth research question targets participants' views on watching movie clips with English subtitles to learn L2 vocabulary. The interviews revealed that participants perceived several advantages from using this teaching method in online classes. First, they found that watching video clips was very beneficial to vocabulary learning and retention. Most participants agreed on the effectiveness of this method for learning how words are used in real contexts. That is, the use of multimedia materials with visual, written, and spoken elements facilitated the learning and retention of the target vocabulary. Second, participants reported that watching video clips makes it easier and faster for them to develop vocabulary with little time and effort. These findings are consistent with those of previous studies (Chai & Erlam, 2008; Romero-Villamil, J.L., & Guzman-Martinez, 2020; Wang, 2012), which also found that students have positive views on the facilitative role of watching video clips in vocabulary learning and retention. Moreover, the results showed that watching movie clips, which included listening to conversations between characters, enhanced students' pronunciation. Thus, watching movie clips with English subtitles had several advantages and educational benefits for participants' L2 vocabulary learning, retention and classroom engagement.

CONCLUSION

The aim of this study is to investigate the impact of watching video clips with English subtitles on L2 learners' vocabulary learning and retention. The study was designed as a pre-test-posttest single group study with weekly short tests. The results show that participants effectively learned, understood and recalled L2 vocabulary after watching movie clips with English subtitles. After the intervention, participants' scores on vocabulary posttests were higher than their scores after learning vocabulary through a traditional teaching method. Watching movie clips also increased participants' motivation to learn L2 vocabulary and engagement in online English

classes. Based on these findings, it can be concluded that watching subtitled video clips is a useful and an interesting teaching method that positively affects learners' vocabulary development. The cognitive theory of multimedia learning can be used to explain why watching videos may help students achieve better learning: presenting knowledge in video form caters to the visual and auditory senses, which provides a more effective way of learning the target language than either of these senses alone. Therefore, this study strengthens the idea that this multimedia based pedagogical strategy can have a positive impact on L2 vocabulary learning and retention. The current research also shows that participants had positive perceptions of watching subtitled movie clips in an online classroom setting, as they were engaged and motivated to learn L2 vocabulary in a stimulating environment.

LIMITATIONS

This study has several limitations. The main limitation that the findings are not generalizable, as the study had a small sample size. Second, the participants' English proficiency was restricted to the intermediate level. Third, the study investigated the impact of watching movie clips on the development of L2 vocabulary. However, the impact of watching video clips on other skills (e.g. grammar, listening, reading, and writing) has not been confirmed and requires further investigation.

RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the study's limitations, scholars should investigate the impact of watching video clips on other skills, such as reading, listening and speaking. In addition, it is important to replicate this study in different contexts and with different groups of students with other proficiency levels. In addition, several modifications could be made to improve the generalizability and precision of the results. For instance, the study could be conducted on a larger scale, include a mixed-gender sample, or use a longer duration for the intervention. Moreover, future studies should feature several English institutions rather than only one institution, as in the current study.

IMPLICATIONS

The findings from this study have several important implications that may be beneficial for L2 teachers and learners. Teachers can integrate online materials in L2 classrooms to teach vocabulary. However, they should be selective about the types of materials used in their classrooms and follow certain criteria in selecting these, such as the content's suitability to the students' age, interests, culture, and language level. In addition, L2 teachers should use multiple teaching techniques to teach not only L2 vocabulary but also the four language skills: reading, writing, listening, and speaking. For example, teachers could employ animated images in combination with sounds and written materials to engage and motivate learners to participate in the online classroom. Moreover, teachers could use other online materials, such

as programmes, websites, documentaries and games to design an online L2 teaching vocabulary curriculum. Finally, L2 learners should regularly watch movie clips and practice word pronunciation in a real context to expand their vocabulary knowledge and be able to understand the authentic usage of the target language.

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